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RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/724,860

DATE: 12/11/2000
 TIME: 13:23:11

Input Set : A:\99372Aseq.txt
 Output Set: N:\CRF3\12112000\I724860.raw

3 <110> APPLICANT: Welcher, Andrew
 4 Wen, Duanzhi
 5 Kelly, Michael
 7 <120> TITLE OF INVENTION: Interferon-Like Molecules and Uses Thereof
 9 <130> FILE REFERENCE: 99,372-A
 C--> 11 <140> CURRENT APPLICATION NUMBER: US/09/724,860
 C--> 12 <141> CURRENT FILING DATE: 2000-11-28
 14 <150> PRIOR APPLICATION NUMBER: 60/169,720
 15 <151> PRIOR FILING DATE: 1999-12-08
 17 <160> NUMBER OF SEQ ID NOS: 39
 19 <170> SOFTWARE: PatentIn Ver. 2.0
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 22 <211> LENGTH: 913
 23 <212> TYPE: DNA
 24 <213> ORGANISM: Rattus norvegicus
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 27 <221> NAME/KEY: CDS
 28 <222> LOCATION: (53)..(625)
 30 <220> FEATURE:
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 36 Met Thr
 37 1
 39 ctg aag tat tta tgg ctg gtg gcc ctc gtg gct cta tac att tca ccc 106
 40 Leu Lys Tyr Leu Trp Leu Val Ala Leu Val Ala Leu Tyr Ile Ser Pro
 41 5 10 15
 43 atc cag tct cag aac tgt gtg tat ctg gat cat acc atc ttg gaa aac 154
 44 Ile Gln Ser Gln Asn Cys Val Tyr Leu Asp His Thr Ile Leu Glu Asn
 45 20 25 30
 47 atg aaa ctt ctg agc agc atc agg acc acc ttt ccc tta aga tgt cta 202
 48 Met Lys Leu Leu Ser Ser Ile Arg Thr Thr Phe Pro Leu Arg Cys Leu
 49 35 40 45 50
 51 aaa gat atc acg gat ttt gag ttt cct caa gag att ctg ctg tac gtc 250
 52 Lys Asp Ile Thr Asp Phe Glu Phe Pro Gln Glu Ile Leu Leu Tyr Val
 53 55 60 65
 55 cag cat gtg aaa aag gac ata aag gca gtc acc tat cat ata tct tct 298
 56 Gln His Val Lys Asp Ile Lys Ala Val Thr Tyr His Ile Ser Ser
 57 70 75 80
 59 ctg gcg cta att att ttc agt ctt aaa gac tcc atc tcc ctg gcg aca 346
 60 Leu Ala Leu Ile Ile Phe Ser Leu Lys Asp Ser Ile Ser Leu Ala Thr
 61 85 90 95
 63 gag gaa cgc ttg gaa cgt atc aga tcg gga ctt ttc aaa caa gtg cag 394
 64 Glu Glu Arg Leu Glu Arg Ile Arg Ser Gly Leu Phe Lys Gln Val Gln
 65 100 105 110
 67 caa gct cga gag tgc atg gta gac gag gag aac aag aac acg gag gag 442

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68 Gln Ala Arg Glu Cys Met Val Asp Glu Glu Asn Lys Asn Thr Glu Glu
 69 115 120 125 130
 71 gac agt aca tca caa cat cct cac tca gag ggc ttc aag gca gtc tac 490
 72 Asp Ser Thr Ser Gln His Ser His Pro His Lys Ala Val Tyr
 73 135 140 145
 75 ctg gaa ttg aac aag tat ttc ttc aga atc aga aag ttc ctg gta aat 538
 76 Leu Glu Leu Asn Lys Tyr Phe Phe Arg Ile Arg Lys Phe Leu Val Asn
 77 150 155 160
 79 aag aaa tac agt ttc tgt gtc tgg aag att gtc gtg gaa ata aga 586
 80 Lys Lys Tyr Ser Phe Cys Ala Trp Lys Ile Val Val Val Glu Ile Arg
 81 165 170 175
 83 aga tgt ttc agt ata ttt tac aaa cta ctc aac atg aat tgagaatcat 635
 84 Arg Cys Phe Ser Ile Phe Tyr Lys Leu Leu Asn Met Asn
 85 180 185 190
 87 ccagcttcaa gcaagaacct agatagaagt tggactgct caaatgtccc caagaacgct 695
 89 tgattctaag gctattgcga gctctgtct acacacttcg gacgcaagac tttcaaggt 755
 91 cagggttcaa ggttagtacag tcaaaggaag tcttatgtta agcaaaagaa aaatttcagt 815
 93 ggaaaaagcta gcagaaaatgt caacttgtca aaaaaaacaac ttatggatta tggcattgac 875
 95 gttactagca aaaaaaataa aacaaaaaaa aacaaaaaa 913
 98 <210> SEQ ID NO: 2
 99 <211> LENGTH: 191
 100 <212> TYPE: PRT
 101 <213> ORGANISM: Rattus norvegicus
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 104 Met Thr Leu Lys Tyr Leu Trp Leu Val Ala Leu Val Ala Leu Tyr Ile
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 107 Ser Pro Ile Gln Ser Gln Asn Cys Val Tyr Leu Asp His Thr Ile Leu
 108 20 25 30
 110 Glu Asn Met Lys Leu Leu Ser Ser Ile Arg Thr Thr Phe Pro Leu Arg
 111 35 40 45
 113 Cys Leu Lys Asp Ile Thr Asp Phe Glu Phe Pro Gln Glu Ile Leu Leu
 114 50 55 60
 116 Tyr Val Gln His Val Lys Lys Asp Ile Lys Ala Val Thr Tyr His Ile
 117 65 70 75 80
 119 Ser Ser Leu Ala Leu Ile Ile Phe Ser Leu Lys Asp Ser Ile Ser Leu
 120 85 90 95
 122 Ala Thr Glu Glu Arg Leu Glu Arg Ile Arg Ser Gly Leu Phe Lys Gln
 123 100 105 110
 125 Val Gln Gln Ala Arg Glu Cys Met Val Asp Glu Glu Asn Lys Asn Thr
 126 115 120 125
 128 Glu Glu Asp Ser Thr Ser Gln His Pro His Ser Glu Gly Phe Lys Ala
 129 130 135 140
 131 Val Tyr Leu Glu Leu Asn Lys Tyr Phe Phe Arg Ile Arg Lys Phe Leu
 132 145 150 155 160
 134 Val Asn Lys Lys Tyr Ser Phe Cys Ala Trp Lys Ile Val Val Val Glu
 135 165 170 175
 137 Ile Arg Arg Cys Phe Ser Ile Phe Tyr Lys Leu Leu Asn Met Asn
 138 180 185 190
 141 <210> SEQ ID NO: 3

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/724,860

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Input Set : A:\99372Aseq.txt
Output Set: N:\CRF3\12112000\I724860.raw

142 <211> LENGTH: 168
143 <212> TYPE: PRT
144 <213> ORGANISM: Rattus norvegicus
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148 1 5 10 15
150 Ser Ile Arg Thr Thr Phe Pro Leu Arg Cys Leu Lys Asp Ile Thr Asp
151 20 25 30
153 Phe Glu Phe Pro Gln Glu Ile Leu Leu Tyr Val Gln His Val Lys Lys
154 35 40 45
156 Asp Ile Lys Ala Val Thr Tyr His Ile Ser Ser Leu Ala Leu Ile Ile
157 50 55 60
159 Phe Ser Leu Lys Asp Ser Ile Ser Leu Ala Thr Glu Glu Arg Leu Glu
160 65 70 75 80
162 Arg Ile Arg Ser Gly Leu Phe Lys Gln Val Gln Gln Ala Arg Glu Cys
163 85 90 95
165 Met Val Asp Glu Glu Asn Lys Asn Thr Glu Glu Asp Ser Thr Ser Gln
166 100 105 110
168 His Pro His Ser Glu Gly Phe Lys Ala Val Tyr Leu Glu Leu Asn Lys
169 115 120 125
171 Tyr Phe Phe Arg Ile Arg Lys Phe Leu Val Asn Lys Lys Tyr Ser Phe
172 130 135 140
174 Cys Ala Trp Lys Ile Val Val Val Glu Ile Arg Arg Cys Phe Ser Ile
175 145 150 155 160
177 Phe Tyr Lys Leu Leu Asn Met Asn
178 165
181 <210> SEQ ID NO: 4
182 <211> LENGTH: 1836
183 <212> TYPE: DNA
184 <213> ORGANISM: Homo sapiens
186 <220> FEATURE:
187 <221> NAME/KEY: CDS
188 <222> LOCATION: (575)..(1195)
190 <220> FEATURE:
191 <221> NAME/KEY: sig_peptide
192 <222> LOCATION: (575)..(655)
194 <400> SEQUENCE: 4
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197 tcaataatac acagtcattt ggtcaatgtc tatgatataac tcaatygagac aggatgtttg 120
199 gctatacgac caggtacaaa aaatataattt tcatgaagga tcaactccctc ttatgtataa 180
201 gatttgggtg agtgagtgg tgagtggatg catggactca caqctttgg ctttctqaaa 240
203 taccctgcat cagtcattttt atgatgtttt cttatgtctg ggatggatca tccaggcatt 300
205 taaggttaca cgtatggtaat tctttgtctca tttttcaggg aaaaaaaaaa gttatcactt 360
207 ccaaaagtccg catatgcacc cgaagtaaaa aaaaaaaaaa aaaaaaaaaaag cctcagaggc 420
209 aaaggaaaagg ggccgcaacc ttggtaact gtggaaatgac gaatgagaaa actccctctg 480
211 ctgaagatata tcaggatataa aaggcacat gaaaggaaaac tcaaaacatc attgtcatat 540
213 acacatcttc tggatttttt agcttgcaaa aaaa atg agc acc aaa cct gat atg 595
214 Met Ser Thr Lys Pro Asp Met
215 1 5

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/724,860

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TIME: 13:23:12

Input Set : A:\99372Aseq.txt
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217 att caa aag tgt ttg tgg ctt gag atc ctt atg ggt ata ttc att gct 643
 218 Ile Gln Lys Cys Leu Trp Leu Glu Ile Leu Met Gly Ile Phe Ile Ala
 219 10 15 20
 221 ggc acc cta tcc ctg gac tgt aac tta ctg aac gtt cac ctg aga aga 691
 222 Gly Thr Leu Ser Leu Asp Cys Asn Leu Leu Asn Val His Leu Arg Arg
 223 25 30 35
 225 gtc acc tgg caa aat ctg aga cat ctg agt agt atg agc aat Ica ttt 739
 226 Val Thr Trp Gln Asn Leu Arg His Leu Ser Ser Met Ser Asn Ser Phe
 227 40 45 50 55
 229 cct gta gaa tgt cta cga gaa aac ata gct ttt gag ttg ccc caa gag 787
 230 Pro Val Glu Cys Leu Arg Glu Asn Ile Ala Phe Glu Leu Pro Gln Glu
 231 60 65 70
 233 ttt ctg caa tac acc caa cct atg aag agg gac atc aag aag gcc ttc 835
 234 Phe Leu Gln Tyr Thr Gln Pro Met Lys Arg Asp Ile Lys Ala Phe
 235 75 80 85
 237 tat gaa atg tcc cta cag gcc ttc aac atc ttc agc caa cac acc ttc 883
 238 Tyr Glu Met Ser Leu Gln Ala Phe Asn Ile Phe Ser Gln His Thr Phe
 239 90 95 100
 241 aaa tat tgg aaa gag aga cac ctc aaa caa atc caa ata gga ctt gat 931
 242 Lys Tyr Trp Lys Glu Arg His Leu Lys Gln Ile Gln Ile Gly Leu Asp
 243 105 110 115
 245 cag caa gca gag tac ctg aac caa tgc ttg gag gaa gac gag aat gaa 979
 246 Gln Gln Ala Glu Tyr Leu Asn Gln Cys Leu Glu Glu Asp Glu Asn Glu
 247 120 125 130 135
 249 aat gaa gac atg aaa gaa atg aaa gag aat gaa atg aat ccc tca gaa 1027
 250 Asn Glu Asp Met Lys Glu Met Lys Glu Asn Glu Met Lys Pro Ser Glu
 251 140 145 150
 253 gcc agg gtc ccc cag ctg agc agc ctg gaa ctg agg aga tat ttc cac 1075
 254 Ala Arg Val Pro Gln Leu Ser Ser Leu Glu Leu Arg Arg Tyr Phe His
 255 155 160 165
 257 agg ata gac aat ttc ctg aaa gaa aag aaa tac agt gac tgt gcc tgg 1123
 258 Arg Ile Asp Asn Phe Leu Lys Glu Lys Tyr Ser Asp Cys Ala Trp
 259 170 175 180
 261 gag att gtc cga gtg gaa atc aga aga tgt ttg tat tac ttt tac aaa 1171
 262 Glu Ile Val Arg Val Glu Ile Arg Arg Cys Leu Tyr Phe Tyr Lys
 263 185 190 195
 265 ttt aca gct cta ttc agg agg aaa taaggatata ttttggaaatt aaaattccctt 1225
 266 Phe Thr Ala Leu Phe Arg Arg Lys
 267 200 205
 269 ttccctccga aatctcttttc tccctcttcct cctccatctt ctttttaagg attgttqtc 1285
 271 tgcctgttaa gcctgtcctc agttggactg gtgcctcg aacatcaggg acactcacct 1345
 273 ctcttaaggag aggttaatgcc aaccatcctc aggtgtacca agagtcctt tagaaagtct 1405
 275 ttaagacatt tttaaggaa taagattccc tctccgtctt cttcttattct ctcttgcct 1465
 277 ttctgtggc cattttggaa gagcttgcataatataccca cctgtggact tcaccaagac 1525
 279 aatggctaga ggataggag cagagaatgt tgcggaaatgg taacatttca atgacttaac 1585
 281 tggatggctgc ccaagggtgc ttatccatgt aaaattcagc acataaaaag agcttataaca 1645
 283 tgcctccctag agtcaataact cttgcatttt cccctccctg ctggggggga aaaagggtga 1705
 285 catttctggc ccatttccctt ctcaagctgg ttgtttgaa ttgtatgttg tggatggta 1765
 287 ttccattact ttaagagtgaa agatccatag tggatggta aattagacga 1825

RAW SEQUENCE LISTING DATE: 12/11/2000
 PATENT APPLICATION: US/09/724,860 TIME: 13:23:12

Input Set : A:\99372Aseq.txt
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 293 <211> LENGTH: 207
 294 <212> TYPE: PRT
 295 <213> ORGANISM: Homo sapiens
 297 <400> SEQUENCE: 5
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 301 Leu Met Gly Ile Phe Ile Ala Gly Thr Leu Ser Leu Asp Cys Asn Leu
 302 20 25 30
 304 Leu Asn Val His Leu Arg Arg Val Thr Trp Gln Asn Leu Arg His Leu
 305 35 40 45
 307 Ser Ser Met Ser Asn Ser Phe Pro Val Glu Cys Leu Arg Glu Asn Ile
 308 50 55 60
 310 Ala Phe Glu Leu Pro Gln Glu Phe Leu Gln Tyr Thr Gln Pro Met Lys
 311 65 70 75 80
 313 Arg Asp Ile Lys Lys Ala Phe Tyr Glu Met Ser Leu Gln Ala Phe Asn
 314 85 90 95
 316 Ile Phe Ser Gln His Thr Phe Lys Tyr Trp Lys Glu Arg His Leu Lys
 317 100 105 110
 319 Gln Ile Gln Ile Gly Leu Asp Gln Gln Ala Glu Tyr Leu Asn Gln Cys
 320 115 120 125
 322 Leu Glu Glu Asp Glu Asn Glu Asn Glu Asp Met Lys Glu Met Lys Glu
 323 130 135 140
 325 Asn Glu Met Lys Pro Ser Glu Ala Arg Val Pro Gln Leu Ser Ser Leu
 326 145 150 155 160
 328 Glu Leu Arg Arg Tyr Phe His Arg Ile Asp Asn Phe Leu Lys Glu Lys
 329 165 170 175
 331 Lys Tyr Ser Asp Cys Ala Trp Glu Ile Val Arg Val Glu Ile Arg Arg
 332 180 185 190
 334 Cys Leu Tyr Tyr Phe Tyr Lys Phe Thr Ala Leu Phe Arg Arg Lys
 335 195 200 205
 338 <210> SEQ ID NO: 6
 339 <211> LENGTH: 178
 340 <212> TYPE: PRT
 341 <213> ORGANISM: Homo sapiens
 343 <400> SEQUENCE: 6
 344 Cys Asn Leu Leu Asn Val His Leu Arg Arg Val Thr Trp Gln Asn Leu
 345 1 5 10 15
 347 Arg His Leu Ser Ser Met Ser Asn Ser Phe Pro Val Glu Cys Leu Arg
 348 20 25 30
 350 Glu Asn Ile Ala Phe Glu Leu Pro Gln Glu Phe Leu Gln Tyr Thr Gln
 351 35 40 45
 353 Pro Met Lys Arg Asp Ile Lys Lys Ala Phe Tyr Glu Met Ser Leu Gln
 354 50 55 60
 356 Ala Phe Asn Ile Phe Ser Gln His Thr Phe Lys Tyr Trp Lys Glu Arg
 357 65 70 75 80
 359 His Leu Lys Gln Ile Gln Ile Gly Leu Asp Gln Gln Ala Glu Tyr Leu
 360 85 90 95

VERIFICATION SUMMARY
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Input Set : A:\99372Aseq.txt
Output Set: N:\CRF3\12112000\1724860.raw

L:11 M:270 C: Current Application Number differs, Replaced Application Number
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date